

Title page, Content, etc.

権利	Copyrights 日本貿易振興機構（ジェトロ）アジア 経済研究所 / Institute of Developing Economies, Japan External Trade Organization (IDE-JETRO) http://www.ide.go.jp
journal or publication title	Agro-Based Industry in Myanmar - Prospects and Challenges
year	2003
URL	http://hdl.handle.net/2344/00015963



ASEDP NO.67

AGRO-BASED INDUSTRY IN MYANMAR PROSPECTS AND CHALLENGES

Edited by
U TIN HTUT OO
and
TOSHIHIRO KUDO



アジア経済研究所



14032429

INSTITUTE OF DEVELOPING ECONOMIES
JAPAN EXTERNAL TRADE ORGANIZATION

ASEDP NO. 67

AGRO-BASED INDUSTRY IN MYANMAR
PROSPECTS AND CHALLENGES

Edited by
U TIN HTUT OO
and
TOSHIHIRO KUDO

INSTITUTE OF DEVELOPING ECONOMIES
JAPAN EXTERNAL TRADE ORGANIZATION
CHIBA, JAPAN

CONTENTS

ACKNOWLEDGEMENT

Chapter 1: Introduction	1
Chapter 2: Agro-based Industrializing Strategy	15
1. Introduction	15
1.1 Background	15
1.2 Objectives of the Study	16
1.3 Definition	16
2. Current Conditions and Environment of Industry	18
2.1 Low Level of Industrialization	18
2.2 Changing International Environment	23
2.3 Overview of Present Status of Agro-based Industries	26
3. Agro-based Industrializing Strategy	36
3.1 General Framework	36
3.2 Basic Approach to Agro-based Industrialization Strategy in Myanmar	37
3.3 Learning from Singapore's Experience	38
3.4 Preliminary Conclusion	38
Chapter 3: Rice Industry	43
1. Introduction	43
2. Agro-ecological Zones	43
2.1 Climate and Water Source	44
2.2 Soil Type	45
3. Rice and Myanmar	46
3.1 Historical Information	46
3.2 Current Information	54

4. Rice Deficit Regions	57
5. Rice Mills	58
5.1 British Government Era	59
5.2 Socialist Economy Era	60
5.3 Present Era	60
6. Utilization of By-Products	71
6.1 Bran Oil Mills	71
6.2 Mohinga Factories	74
6.3 Rice Vermicelli Mills	74
7. National Rice Policy	77
7.1 Paddy Purchasing by State	78
7.2 Food Security	81
8. Rice Export	82
9. Rice Marketing	84
9.1 Farmers' Marketing	84
9.2 MAPT's Rice Prices	85
9.3 Paddy and Rice Quality	86
9.4 Rice Marketing by Private Sector	87
10. Rice Price Domestic Market	89
10.1 Collapse of Rice Price	90
10.2 Floor Price and Ceiling Price	94
11. Constraints of Rice Production	95
11.1 Chemical Fertilizer	96
11.2 Quality Seeds	100
11.3 Insufficient Working Capital	101
11.4 Small-Scale Agricultural Machineries	102
12. Conclusion	103
12.1 Rice Area Expansion for Long Term	103
12.2 Rice Research	103
12.3 Post Harvest Technology	103
12.4 Land Policy	104
12.5 Pricing Policy	105
12.6 Development of Rice Mills	108

12.7	Inventory Credit System	109
12.8	Quality Seed	110
12.9	Agro-inputs	110
12.10	Market Information & Market Research	110

Chapter 4: Wheat Flour Industry 123

1.	Introduction	123
2.	Review of Past Performance of Wheat Production and Its Productivity	124
2.1	Colonial Era (1901-02 to 1947-48)	124
2.2	Independent Era (1948-49 to 1973-74)	125
2.3	Socialist Era (1974-75 to 1987-88)	127
3.	Current Situation of Wheat Production	129
3.1	Changing Situation	129
3.2	Varietal History and Improvement	131
3.3	Cropping Practices in Major Wheat Growing Areas	132
4.	Major Constraints to Wheat Production	136
4.1	Production Constraints	136
4.2	Agronomic Constraints	138
4.3	Management Constraints	139
4.4	Institutional Constraints	140
5.	Consumption Pattern of Wheat, Wheat Import and Status of Self-Sufficiency	141
5.1	Consumption Pattern	141
5.2	Wheat and Wheat Products Utilized in Myanmar	142
5.3	Wheat Import and Status of Self-Sufficiency	143
6.	Marketing of Wheat & Wheat Flour Industries	146
6.1	Marketing System	146
6.2	Cost of Production & Farm-Gate Price	147
6.3	Wheat Flour Industries	148

7.	Research and Human Resources Development	150
7.1	Research Development	150
7.2	Human Resources Development	151
8.	Prospects and Challenges	152
8.1	Research Aspects	152
8.2	Land Potential	152
8.3	Human Resources Development	153
9.	Recommendations for Improvement of Wheat Industries	153
10.	Conclusion	154
Chapter 5:	Pulses Industry	155
1.	Introduction	155
2.	Pulses Production	155
3.	Constraints and Limiting Factors for Production	157
3.1	Lack of Quality Seed	157
3.2	Lack of Crop Management Optima and Suitable Varieties	157
3.3	Transfer of Improved Technology	158
3.4	Narrow Genetic Diversity	158
3.5	Biotic and Abiotic Stresses	158
4.	Export	159
4.1	Export Growth	159
4.2	Value-Added Export	160
5.	Imports	162
6.	Consumption Pattern	163
7.	Comparative Advantage of Pulses	166
8.	Marketing	167
9.	Human Resources Development in Pulses Industry	169

9.1	Current Status of HRD in Pulses Production	170
9.2	Future HRD Program of Pulses	171
10.	Conclusion	172
Chapter 6: Feed Industry		175
1.	Introduction	175
2.	Current Status of Livestock & Fisheries Sector	176
2.1	Ruminant Farming	177
2.2	Small-Scale Animals Production	177
2.3	Animal Population and Growth	177
3.	Feeding System	179
3.1	Feeding to Cattle and Buffaloes	179
3.2	Feeding to Poultry, Duck, Sheep, Goat and Pig	180
4.	Feed Sources and Requirements	180
4.1	Roughages	180
4.2	Concentrates	181
4.3	Fishery Products and Fish Meals	182
4.4	Feed Requirements & Supply Situation	182
4.5	Compound Feed Production	182
4.6	Poultry Feeds Production and Requirements of Raw Materials	185
5.	Pasture Establishment	200
5.1	Different Types of Pastures	201
5.2	Grazing Ground Availability	202
6.	Production and Export of Some Important Crops	203
7.	Human Resource Development For Feed Industry	205
8.	Danyin-kone Feed Mill	208
9.	Conclusion	209

Chapter 7: Edible Oil Industry	211
1. Introduction	211
2. Background History	211
3. Oilseed Crops Production in the Past	212
3.1 Colonial Era (1900 to 1948)	212
3.2 Independent Era (1948-49 to 1973-74)	213
3.3 Socialist Era (1974-75 to 1987-88)	219
4. Current Situation on Oilseed Crop Production (1989-1900 to 1999-2000)	222
4.1 Groundnut	222
4.2 Sesame	222
4.3 Sunflower	223
4.4 Niger	224
4.5 Mustard	225
5. Utilization	225
5.1 Edible Oil	225
5.2 Snack Food	225
5.3 Fermented Cake	226
6. Oil Mill	227
7. Marketing Policy and System	228
8. Research and Human Resource Development	229
9. Constraints	231
10. Recommendation	232
11. Oil Palm Development	233
11.1 Background	233
11.2 Present Situation	233
11.3 Oil Palm Project	233
11.4 Palm Oil Mill	234
11.5 Constraints and Issues	236
11.6 Measures	236
12. Conclusion	237

Chapter 8: Growth, Survival and Prospects of Sugar Processing SMEs	241
1. Introduction	241
2. The Current Status of SMEs in Myanmar	241
3. Description of Different Forms of Jaggery Products	244
4. Beginning of Sugar Processing Industry in Myanmar	245
5. Myanmar Indigenous Technology of Pan Boiling	249
6. Jaggery Trade and Business	251
7. State Enterprise vs Private Enterprise	254
8. Structural Adjustment of SMEs in Myanmar Sugar Industry	257
9. Expansion of the Industry	262
10. Production Estimates	263
11. Salient Industrial Features of Private Sector Sugar Production	266
12. Comparison and Contrast Between Prewar Myanmar Rice Industry and Present Private Sector Sugar Industry	267
13. Strength and Weakness of SMEs in Private Sugar Industry	275
13.1 Compatibility	275
13.2 Relevancy	276
13.3 Appropriateness	276
13.4 Weakness	276
14. Market Channels of SMEs in Private Sugar Industry	277

15. Development Issues of Sugar Processing SMEs	278
16. Conclusion	281
Chapter 9: Cotton Textile Industry	287
1. Introduction	287
2. Historical Perspective of Myanmar Textile Industry	287
3. Cotton Textile Industry	290
3.1 State-owned Sector	290
3.2 Cooperative Sector	296
3.3 Private Sector	296
3.4 Export Oriented Private Textile and Garment Industry	301
3.5 Textile Exports and Imports	304
3.6 Domestic Demand and Per Capital Consumption of Fabrics	305
4. Cotton Industry	307
4.1 Historical Perspective and Economic Importance of Cotton	307
4.2 Cotton Species Grown in Myanmar	309
4.3 Profile of Cotton Area, Yield and Production	311
4.4 Cotton Supply and Use	313
4.5 Cotton Procurement	317
4.6 The Myanmar Cotton and Cotton Products Merchants and Manufacturers' Association	324
4.7 Ginning and Processing Sector	325
4.8 Downstream Industries	326
4.9 Challenges in Cotton Production	327
4.10 Opportunities in Cotton Production	339

4.11	Proposed Strategy for Future Development of Textile Industry with Particular Emphasis on Cotton Development	342
5.	Conclusion	346
Chapter 10: Facts about Myanmar Jute Industries		353
1.	Introduction	353
2.	Background History	353
3.	Constitution	354
4.	Objectives and Functions	355
5.	Sown Acres and Raw Jute Production	356
6.	Purchasing Prices	356
7.	Installed Machinery	358
8.	Products	359
9.	Export	359
10.	Production of Mills & Factories	359
11.	Diversified Application of Jute, Kenaf and Allied Fibre.	361
12.	The New Projects of MJI	361
13.	Human Resource Development Activities	362
14.	Constraints	365
15.	Conclusion	365
Chapter 11: Rubber & Rubber Product Industry		367
1.	Introduction	367
2.	Review of Past Performance	368
3.	Current Situation for Rubber Development	369

4.	Development Strategies	377
4.1	Rubber Production	377
4.2	Role of the Private Sector in Rubber Industry	378
4.3	Extension Services	378
4.4	Research Needs	379
4.5	Planting Materials	379
4.6	Chemical Fertilizers	380
4.7	Role of Intercropping	380
4.8	Investment Needs	381
4.9	Rubber Goods	381
5.	Constraints and Issues	382
5.1	Land Policies	382
5.2	Production	382
5.3	Marketing	383
5.4	Export	383
5.5	Finance and Tax	384
5.6	Rubber Products	385
6.	Measures and Ways for Further Development	385
6.1	Agronomy	385
6.2	Industry	386
7.	Prospects and Challenges	386
7.1	Yield	386
7.2	Competitiveness	386
7.3	Value Added Products	386
7.4	Research and Development	388
7.5	Human Resources Development	388
8.	Finding	388
9.	Recommendation	389
10.	Conclusion	389

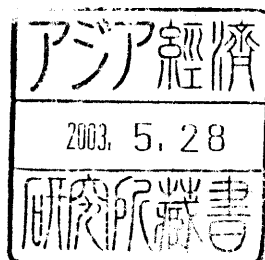
Members of the Study Group of Agro-based Industry in Myanmar

<u>Name</u>	<u>Organization</u>	<u>Position</u>
Aung Hlaing	DAP, MOAI	Assistant Director
Aung Kyi	DAP, MOAI	Assistant Director
Aung Shwe	MAS, MOAI	Manager
Boon Thein	DAP, MOAI	Deputy Director
Hla Kyaw	DAP, MOAI	Director
Kyaw Myint	MAS, MOAI	Manager
Maung Maung Yi	MAS, MOAI	Deputy GM
Mya Hlaing	MPCE, MOAI	GM
Myo Oo	MAPT, MOC	Deputy GM
Pye Tin	MCSE, MOAI	GM
San Thein	MSE, MOAI	Deputy GM
Tin Htut Oo	DAP, MOAI	Director General
Tin Maung Oo	LBVD, MOLF	Assistant Director
Tin Maung Shwe	MAS, MOAI	Deputy GM
Tin Nwe	MAS, MOAI	Deputy GM
Toshihiro Kudo	DAP, MOAI	Visiting Research Fellow
Ye Gaung	MJI, MOAI	GM

Abbreviation

DAP	Department of Agricultural Planning
LBVD	Livestock Breeding and Veterinary Department
MAPT	Myanmar Agricultural Produce Trading
MAS	Myanmar Agriculture Service
MCSE	Myanmar Cotton and Sericulture Enterprise
MJI	Myanmar Jute Industries
MOAI	Ministry of Agriculture and Irrigation
MOC	Ministry of Commerce
MOLF	Ministry of Livestock and Fisheries
MPCE	Myanmar Perennial Crop Enterprise

A113R
638.77
Agl



Institute of Developing Economies, Japan External Trade Organization
3-2-2, Wakaba, Mihama-ku, Chiba-shi, Chiba 261-8545, Japan
All rights reserved. Published 2003.

IDE-JETRO

ISBN 4-258-55067-1